

**REMARKS-General**

1. The amended independent claim 13 and the newly drafted independent claim 18 incorporate all structural limitations of the original claim 1 and include further limitations previously brought forth in the disclosure. No new matter has been included. All claims 13-23 are submitted to be of sufficient clarity and detail to enable a person of average skill in the art to make and use the instant invention, so as to be pursuant to 35 USC 112.

**Response to Rejection of Claims 3-8 and 13-17 under 35USC103**

2. The Examiner rejected claims Kralik (4,660,831) in view of Ou (5,759,123).

3. Pursuant to 35 U.S.C. 103: "(a) A patent may not be obtained thought the invention is **not identically** disclosed or described as set forth in **section 102 of this title**, if the **differences** between the subject matter sought to be patented and the prior art are such that the **subject matter as a whole would have been obvious** at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made."

4. In view of 35 U.S.C. 103(a), it is apparent that to be qualified as a prior art under 35USC103(a), the prior art must be cited under 35USC102(a)~(g) but the disclosure of the prior art and the invention are not identical and there are one or more differences between the subject matter sought to be patented and the prior art. In addition, such differences between the subject matter sought to be patented **as a whole** and the prior art are obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.

5. In other words, the differences between the subject matter sought to be patent as a whole of the instant invention and Kralik which appears to be qualified as prior art of the instant invention under 35USC102(b) are obvious in view of Ou at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.

6. The applicant respectfully submits that in order to determine whether the differences between the subject matters sought to be patent as a whole of the instant invention and the primary prior art, Kralik, are obvious in view of the supplemental cited arts, Ou, we have to identify all the differences between the claims of the instant inventions and Kralik. The applicant respectfully identifies the differences between the claims of the instant invention and Kralik as follows:

(a) in claims 13-23, **“a ball cover comprises at least four elliptical cover skins and four construction liners each having a size and shape at least equal to said cover skin, wherein each of the construction liners comprises a compressed and vulcanized integral liner piece”**, wherein Kralik merely teaches a game ball having an outer carcass, a liner inside the padding, and a bladder inside the liner, wherein the liner is formed of multiple layers including inner and outer woven fabric reinforcement layers and a plastic sheet middle layer for establishing the shape of the ball that fails to suggest each of the construction liners is an integral liner piece.

(b) in claims 13-23, **“the integral liner piece which is compressed and vulcanized from a rubber piece of predetermined thickness and a fabric lining, which has a same shape and size of the rubber piece, until the fabric lining is integrally united with the rubber piece to form the integral liner piece”**, wherein Kralik merely teaches an outer reinforcement layer 24 made of woven fabric, preferably polyester, a control layer 26 of sheet material, preferably ethylene vinyl acetate, and an inner reinforcement layer 28 of the same material as outer layer 24”. Kralik further discloses that “The **middle layer 26 of ethylene vinyl acetate** is preferably composed of 28 percent vinyl acetate and 72 percent ethylene, having a specific gravity of 0.95, elongation of 750 percent at ambient, tensile strength of 2500 pounds per square inch at ambient and a Shore durometer hardness of 86. Therefore, Kralik fails to teach the rubber piece and the fabric lining are integrally united with each other to form the construction liner.

In addition, Kralik merely teach “the outer and inner woven reinforcement layers 24 and 28, respectively, are embedded in the middle layer 26” and “This is done immediately after extrusion of middle layer before it has set, by embedding the inner and outer layers 24 and 28 in it through the use of rollers or the like”. It is clearly that Kralik

fails to teach the integral liner piece is compressed and vulcanized from the rubber piece and the fabric lining.

(c) in claims 15-17 and 21-23, the **integral liner piece** of the construction liner is formed by different configurations to enhance the strength thereof:

(i) an additional fabric lining, wherein the two fabric linings are **integrally** attached to both sides of the rubber piece respectively and compressed and vulcanized to integrally unite with the rubber piece to form the integral liner piece;

(ii) an additional rubber piece and an additional fabric lining, wherein the two rubber pieces are placed between the two fabric linings respectively and compressed and vulcanized to integrally unite with the fabric linings to form the integral liner piece;  
and

(iii) an additional rubber piece and two more fabric linings, wherein the two rubber pieces are placed between the three fabric linings intervally and compressed and vulcanized to integrally unite with the three fabric linings to form the integral piece;

wherein Kralik never mentions any additional fabric lining and/or additional rubber piece compressed and vulcanized to integrally unite to form the integral piece. It is worth to mention that no matter how many additional fabric lining and additional rubber piece are overlapped with the fabric lining and rubber piece, the fabric linings and the rubber pieces are compressed and vulcanized to integrally unite to form the **integral piece**.

7. Furthermore, the applicant respectfully submits that when applying 35 USC 103, the following tenets of patent law must be adhered to:

(a) The claimed invention must be considered as a whole;

(b) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;

(c) The references must be viewed without the benefit of hindsight vision afforded by the claimed invention; and

(d) Reasonable expectation of success is the standard with which obviousness is determined.

Also, "The mere fact that a reference could be modified to produce the patented invention would not make the modification obvious unless it is suggested by the prior art." *Libbey-Owens-Ford v. BOC Group*, 4 USPQ 2d 1097, 1103 (DCNJ 1987).

8. Ou '123 teaches an American football comprises a ball cover and a bladder disposed in the ball cover, wherein the ball cover is made by compressing and vulcanizing the rubber skin and the fabric pad together to form the fabric-rubber cover piece, wherein the cover pieces are sewn together to form the ball cover to receive the bladder therein. In addition, Ou '123 teaches the press mold has a plurality of circular dents such that the outer surface of each of the rubber skins is compressed to form a plurality of protruding peddles evenly and uniformity distributed on the outer surface of the rubber skins.

9. Regarding to the inventor's another patented invention, i.e. the '123 patent, the objective of Ou '123 is to provide an American football in which the ball cover is made of four rubber made cover pieces sewing edge to edge together. The applicant respectfully submits that there is no construction liner in Ou '123 which only includes the ball cover and the bladder.

10. The Examiner appears to reason that since Kralik teaches that a game ball comprises a liner between the carcass and the bladder, it would have been obvious to one skilled in the art to modify the liner of Kralik with the ball cover of Ou '123. However, an American football does not require two carcasses, i.e. the carcass of Kralik and the ball cover of Ou '123. The main objective of the instant invention is to provide a construction liner to support the ball cover skin. In other words, the strength of the American football can be selectively adjusted by using one single fabric lining and one single rubber piece to form **an integral piece** for beginner players or by using additional fabric linings and additional rubber pieces to form **an integral piece** for professional football players while the structures of the cover skin and the bladder are remained unchanged for the American football.

11. The applicant respectfully submits that neither Kralik nor Ou '123 teaches any **construction liner** comprises a compressed and vulcanized integral liner piece, which is compressed and vulcanized from one or more rubber pieces and one or more rubber

fabric lining, to support the ball skin for an American football. Even Ou '123 teaches the vulcanization technology to make the ball cover of the American football, the ball cover of Ou '123 is a carcass that cannot be used as the construction liner of the instant invention as an alternative of the liner of Kralik.

12. "To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited art references for combination in the manner claimed... [T]he suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness..." *In re Gorman*, 933 F.2d 982, 986, 18 USPQ 2d 1885, 1888 (Fed. Cir. 1991).

13. Accordingly, the applicant believes that neither Kralik nor Ou '123, separately or in combination, suggest or make any mention whatsoever of the difference subject features (a) to (c) as claimed in the amended claims 13 to 23 of the instant invention.

14. Applicant believes that for all of the foregoing reasons, all of the claims are in condition for allowance and such action is respectfully requested.

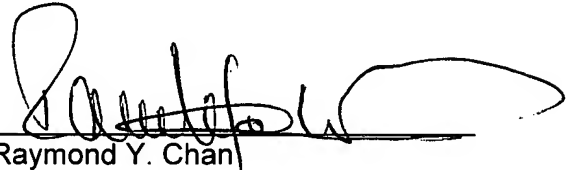
#### **The Cited but Non-Applied References**

15. The cited but not relied upon references have been studied and are greatly appreciated, but are deemed to be less relevant than the relied upon references.

16. In view of the above, it is submitted that the claims are in condition for allowance. Reconsideration and withdrawal of the objection are requested. Allowance of claims 13-23 at an early date is solicited.

17. Should the Examiner believe that anything further is needed in order to place the application in condition for allowance, he is requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

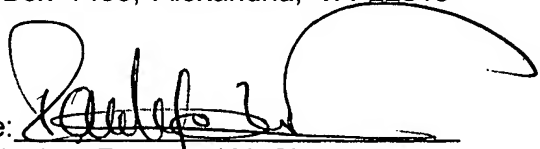


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#### CERTIFICATE OF MAILING

I hereby certify that this corresponding is being deposited with the United States Postal Service by First Class Mail, with sufficient postage, in an envelope addressed to "Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" on the date below.

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